

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor : NOBUKAZU KOIZUMI  
Filed : Concurrently Herewith  
Title : DIGITAL SUBSCRIBER LINE COMMUNICATING SYSTEM  
AND A TRANSCEIVER IN THE SYSTEM  
Examiner : D. VO  
Group Art Unit : 2631

February 12, 2002

Assistant Commissioner for Patents  
Washington, D. C. 20231

**PRELIMINARY AMENDMENT**

DEAR SIR:

Prior to examination on the merits, please amend the subject application as follows:

**IN THE SPECIFICATION:**

On page 1, after the title, please insert on the following line as follows --This application is a continuation of 09/343,668, filed June 29, 1999, allowed November 6, 2001.--

**IN THE CLAIMS:**

Please cancel claims 1-10.

Please add the following new claim:

11.(NEW) A receiver for receiving modulated symbols through a communication line,  
said receiver comprising:

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charged to Deposit Account No. 50-1290.

Filed by Express Mail  
Receipt No. EV035 823135 US  
on 2-12-02  
pursuant to 37 C.F.R. 1.10.  
By Frances Doyle

a bitmap calculating unit for calculating a bitmap which defines a number of transmissible bits for each carrier signal of said symbols in each of periodical noise durations, the calculated bitmap being sent by the receiver to be stored in a transmitter during an initialization period of the communication, said bitmap calculating unit including

a line quality measuring unit for measuring the quality of said communication line in each of periodical noise durations,

a transmission bit number converter for calculating the number of transmissible bits to be allocated to each carrier to form said bitmap, and

a bitmap optimizing unit for minimizing said dummy bits by decreasing the number of said transmissible bits allocated to each carrier signal of said symbols.

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REMARKS

This application is a continuation of U.S. application 09/343,668, filed June 29, 1999,  
allowed November 6, 2001.

Claims 1-10 have been cancelled and new claim 11 has been added.

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Respectfully submitted,



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Thomas J. Bean  
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**CUSTOMER NUMBER 026304**

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Docket No.: FUJA 16.263A  
TJB:fd

202510061400

**Continuation Application of  
U.S. S/N 09/343,668  
Initial Claim**

What is claimed:

1. A receiver for receiving modulated symbols through a communication line, said receiver comprising:
  - a bitmap calculating unit for calculating a bitmap which defines a number of transmissible bits for each carrier signal of said symbols in each of periodical noise durations, the calculated bitmap being sent by the receiver to be stored in a transmitter during an initialization period of the communication, said bitmap calculating unit including
    - a line quality measuring unit for measuring the quality of said communication line in each of periodical noise durations,
    - a transmission bit number converter for calculating the number of transmissible bits to be allocated to each carrier to form said bitmap, and
    - a bitmap optimizing unit for minimizing said dummy bits by decreasing the number of said transmissible bits allocated to each carrier signal of said symbols.